

disinfecting effective amount, ... a *mitigating* effective amount, all of which are understood to the skilled practitioner reading the preamble of the claim, viz., "...disinfecting and cleaning composition in a concentrated form which exhibits reduced irritancy". What exemplary "effective amounts" are can be found in the applicant's specification, but it is believed that the "*disinfecting* effective amount, ... a *mitigating* effective amount" is appropriate and encompasses the breadth of claim coverage which should be afforded to the applicants.

In view of the foregoing amendments to the claims and in view of the arguments presented above, reconsideration of the propriety of the outstanding grounds of rejection, and withdrawal of the rejections is respectfully requested.

Regarding the rejection under 35 USC 102(b) of claims 1, 2 and 11 in view of US H269 to Malik:

The applicants respectfully traverse the grounds of rejection based on H269 to Malik.

Turning to H269, the invention described therein is essentially directed towards a composition which necessarily includes: 0.01-50% by weight of a quaternary ammonium halide compound, 0.01-50% by weight of a glycoside surfactant, and 10-99.98%wt. of water, wherein the weight ratio of the quaternary ammonium halide compound to the glycoside surfactant is at least 0.65:1, but preferably at least 0.8:1.

Further optional constituents that may be added there include water soluble detergent builders, water miscible organic solvents, and one or more "discretionary ingredients" selected from hydrotropes, perfumes, dyes, colorants, thickeners, salt suspending agents, deodorizer, ammonia, anti-oxidants and aerosol propellants. (See H269, column 3, lines 13-39.)

What is striking to the skilled practitioner reading this document is the notorious absence of surfactants such as anionic, and particularly nonionic surfactants. Clearly, the skilled practitioner reading this reference would be directed to omit all but the quaternary ammonium halide compound, and the glycoside surfactant which is recited among the essential constituents from compositions according to H269.

Such a conclusion is bolstered by the fact that in the sole examples described in H269, (see Table 1) the compositions according to the invention clearly exclude a “conventional nonionic surfactant” (an ethoxylated nonylphenol). In contrast, however, compositions which are recited as “control” compositions all include 4.5% by weight of this ethoxylated nonylphenol, but clearly exclude the glycoside surfactant which is key to Malik’s compositions.

As the presently claimed invention requires the presence of both an alkyl polyglycoside compound as well as at least one further nonionic surfactant, clearly the claimed invention cannot be seen as being anticipated by H269 according to Malik. As stated above, nothing in the Malik text teaches nor demonstrates the types of compositions as are presently claimed.

Further, it is not believed that one of appropriate skill in the art reading H269 compositions described by Malik would find any particularly useful suggestion or teaching whereby compositions such as those presently claimed could be arrived at without the exercise of an inventive faculty.

At the outset, as noted above, Malik’s examples clearly dictate the exclusion of any further surfactants, particularly any further nonionic surfactants. As surfactants, Malik’s compositions only admit for the presence of the quaternary ammonium compound, and the polyglycoside compounds. All other surfactants are excluded as demonstrated by the examples in Table 1, and as recited in Malik’s own specification.

Further, as regards to any mitigating effects or benefits, Malik is wholly silent. There is nothing in the Malik document which would provide any hint or even vaguest suggestion as to the selection of specific compounds in order to provide a mitigating effect. Rather, the opposite can be concluded. Reviewing Malik’s example 1 and example 2, the quaternary ammonium halide is present in a relatively high amount viz. 4.5% by weight. One of relevant skill in the art seeing a composition having such a relatively high amount of quaternary ammonium compounds would immediately jump to the determination that such would be likely to be irritating to the eye and/or mucosal tissues. While such might have a beneficial germicidal effect, such would also be expected to be highly detrimental to the skin, eyes, and mucosal tissue and likely be a source of irritation. Thus, one seeking to provide a quaternary ammonium containing

composition which also has a very acceptable irritation profile would dismiss the compositions described in H269 according to Malik out of hand.

Accordingly, as Malik neither anticipates, nor even remotely suggests the types of compositions provided only by the present inventors, reconsideration of the propriety of the rejection and withdrawal is respectfully requested.

Regarding the rejection under 35 USC 103(a) of claims 1-12 in view of US 5728667 to Richter.

The applicants respectfully traverse the grounds of rejection based on US 5728667 to Richter.

With respect now to the Richter document and the compositions taught therein, the attention of the Office is respectfully directed to Richter's summary of the invention. Therein, Richter states that his invention is directed towards a "germicidal light-duty aqueous dishwashing detergent composition" which necessarily include "a quaternary ammonium germicidal compound, an anionic alkyl ether carboxylate, a further nonionic surfactant, a suds boosting agent, as well as further optional additives". One of appropriate skill in the art at the outset would realize that these essential constituents include the quaternary ammonium germicidal compound, but in contrast to the present applicants' invention, Richter's compositions also require an anionic alkyl ether carboxylate surfactant as well as a further nonionic surfactant. Thus, at the outset, a distinction can be drawn as in contrast to Richter's carboxylates, the present invention requires a glycoside surfactant which, however, is not described as being essential to the Richter compositions.

In reviewing the Richter specification in more detail, Richter describes in his generous specification, a wide range of deterative surfactants are recited which might be optionally included, as well as a wide range of nonionic surfactants which can also be included. However, nowhere in the Richter specification is there any teaching or any suggestion whereby one of appropriate skill in the art would be given an appropriate suggestion, or even the vaguest hint as to which of the myriad surfactants described in Richter would be properly selected in order to provide a useful mitigating effect to the quaternary ammonium compound. As is noted above with regard to the Malik reference,

quaternary ammonium compounds are known irritants. However, Richter follows in the same footsteps of Malik and too fails to indicate which surfactants would be effective in mitigating the effects of the quaternary ammonium compounds. At this point, it is believed fair to analogize the Richter composition and its broad recitation of commercially significant deterative surfactants to that of any other well-known handbook, such as *McCutcheon's*. While Richter recites various classes of useful surfactants, but at the same time he fails to provide any indication of specific surfactants, or surfactant compositions which would provide a mitigating effect to the quaternary ammonium compound containing composition. Thus, Richter adds little more than such a well-known handbook which too provides an encyclopedic listing of deterative surfactants, but little else.

Additionally, Richter focused upon providing different technical effects, namely effective "foaming" while preserving the germicidal efficacy which technical effects do not necessarily concern the present inventors. The attention of the Office is directed to Richter's formulations at "Table 1". In each and every one of these, there are present the essential constituents recited by Richter. However, none of the nine example formulations demonstrate a glycoside nonionic surfactant. As such, Richter does not demonstrate any composition which is particularly proximate to those according to the present inventors. The attention of the Office is also directed to "Table 3" wherein the results of "foam heights" are recited as well as the next "Table 4" wherein "antibacterial efficacy" is also reported. These demonstrated results have, however, little practical technical relevance to one seeking to address and overcome the problem of providing a good hard surface cleaning composition with a reduced irritation potential.


As such, it is not believed that the Richter composition can be properly viewed as teaching or suggesting the compositions according to the present invention.

Reconsideration of the propriety of the rejection based on U.S. Patent No. 5,728,667 to Richter, and withdrawal of the rejection, is respectfully requested.

Reconsideration of the bases of rejection in view of the amendments and is respectfully requested. As the next communication, a *Notice of Allowance* is solicited.

Should the Office believe that telephonic communication would advance the prosecution of the instant application, they are invited to telephone the undersigned at the number given below.

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